Please amend claim 41 as follows:

41. (Amended) A method of providing biological activity comprising administering the compound according to claim 1.

Q10

Please amend claim 43 as follows:

43. (Amended) A method for the preparation of a pharmaceutical composition having antiviral activity comprising combining the compound according to claim 1 with other ingredients.

Q11

NEW CLAIMS

Please add new claims 44 and 45 as follows:

44. The method of claim 41, wherein the biological activity comprises pharmaceutical activity.

Q12

45. The method of claims 41, wherein the biological activity comprises antiviral activity.

IN THE ABSTRACT:

After the claims, please insert a page containing the Abstract Of The Disclosure, which is attached hereto as a separately typed page.

REMARKS

The specification and claim amendments have been made in order to conform this patent application to customary United States patent practice.

Attached hereto is a marked-up version of the changes made to the specification by the current amendment. The attachment is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE".

Examination and allowance of pending claims 1-39, 41, and 43-45 are respectfully requested.

Respectfully submitted,

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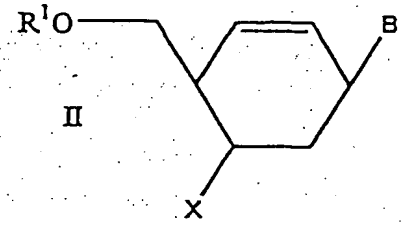
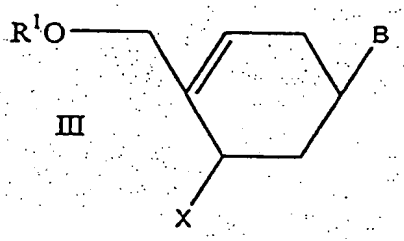
VERSION WITH MARKINGS TO SHOW CHANGES MADE

Please amend claim 2 as follows:

2. (Amended) A six membered, at least partially unsaturated, carbocyclic nucleoside compound, according to claim 1, being a cyclhexenyl nucleoside compound having [the] a general formula [II or III, preferably II] selected from the group consisting of II and III



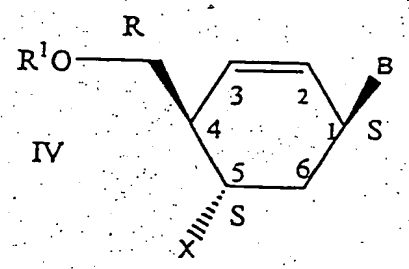
II



III

Please amend claim 3 as follows:

3. (Amended) Compound according to [claims 1 or 2] claim 1, selected from the [following] group of compounds [represented by the formulas IV-X'] consisting of IV, V, VI, VII, VIII, IX, X and X':



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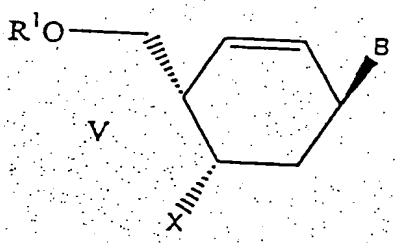
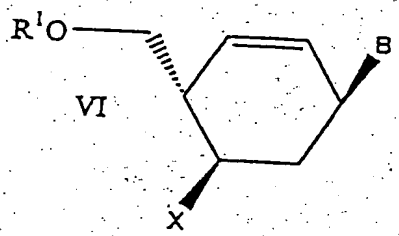
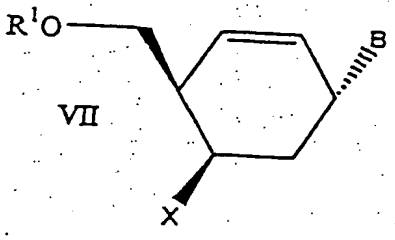


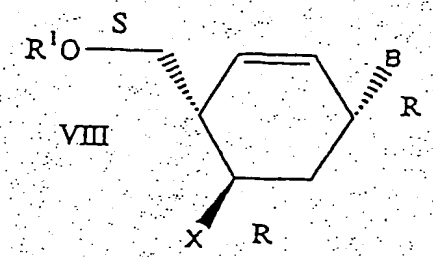
V

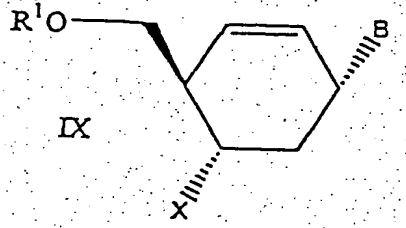


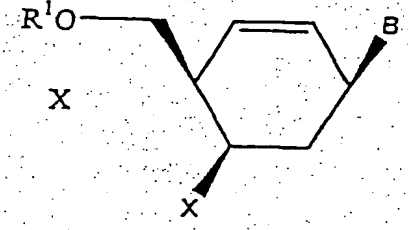
VI



VII


S
R¹O
B
R
VIII
X
R


R¹O
B
IX
X


R¹O
B
X
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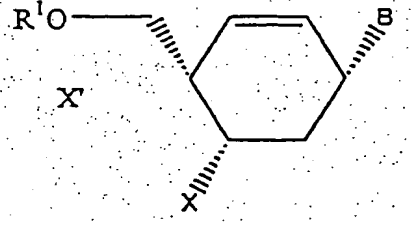

R¹O
B
X
X

Please amend claim 4 as follows:

4. (Amended) Compound according to [any of the preceding claims] claim 1, wherein the C_1 bearing B substitute and the C_5 bearing X substitute both have the (S)-configuration, and the C_4 bearing $-OR^1$ substituent has the (R)–configuration, as depicted by formula IV in claim 3.

Please amend claim 5 as follows:

5. (Amended) Compound according to [claims 1, 2 or 3] claim 1, wherein the C_1 bearing B substituent and the C_5 bearing X substituent both have the (R)–configuration, and the C_4 bearing $-OR^1$ substituent has the (S)-configuration, as depicted by formula VIII in claim 3.

Please amend claim 6 as follows:

6. (Amended) Compound according to [any of the claims 1-4] claim 1, wherein X is represented by a hydroxyl group in the (S)-configuration.

Please amend claim 7 as follows:

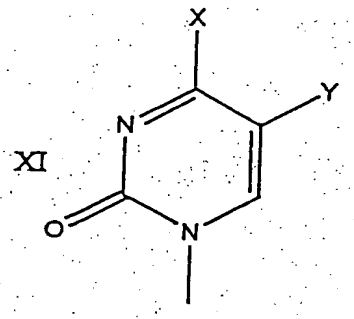
7. (Amended) Compound according to [any of the claims 1, 2, 3 and 5] claim 1, wherein X is hydroxyl in the (R)–configuration.

Please amend claim 8 as follows:

8. (Amended) Compound according to [any of the preceding claims] claim 1, wherein B is derived from the group consisting of pyrimidine bases.

Please amend claim 9 as follows:

9. (Amended) Compound according to claim 7, wherein the pyrimidine base has the general formula XI:



wherein X is chosen from the [following;] group consisting of:

- OH, NH_2, and NHQ,

wherein;

- Q is selected from the [following;] group consisting of:

  OH [or] and C_{1-5} alkyl, and

- Y is selected from the [following;] group consisting of:

  H, F, Cl, Br, I, C_{1-5} alkyl, haloethyl [or] and CH=CH-R, wherein R represents hydrogen, halogen or C_{1-5} alkyl, and wherein haloethyl contains from 1 to 4 F, Cl or Br atoms.

Please amend claim 10 as follows:

10. (Amended) Compound according to [any of the preceding claims] claim 1, wherein B is selected [form] from the group consisting of substituted and unsubstituted adenine, guanine, 2,6-diaminopurine, hypoxanthine and xanthine.

Please amend claim 11 as follows:

11. (Amended) Compound according to [any of the preceding claims] claim 1, wherein the B is selected from the group consisting of aza, deaza, deoxy [or] and deamino analogues of the heterocyclic rings[, as defined in any of the claims 8-10].

Please amend claim 12 as follows:

12. (Amended) Compound according to [any of the preceding claims] claim 1, wherein the protecting group [comprises] is selected from the group consisting of a silyl protecting group, [preferably TBDMS, and/or] a benzoyl protecting group and [or] a [C6H5-CH=] C_6H_5-CH= group.

Please amend claim 13 as follows:

13. (Amended) Compound according to [any of the preceding claims 1-11] claim 1, selected from the group consisting of:

- 9-[1S,4R,5S)-5-hydroxy-4-hydroxymethyl-2-cyclohexenyl] guanine, and
- 9-[1R,4S,5R)-5-hydroxy-4-hydroxymethyl-2-cyclohexenyl].

Please amend claim 14 as follows:

14. (Amended) Compound according to [any of the claims 1-11] claim 1 selected from the [following] group consisting of:

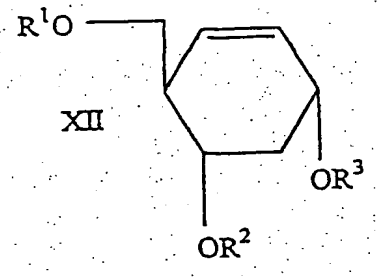
- 9-[(1S,4R,5S)-5-(tert-Butyldimethylsilyloxy)-4-(tert-butyldimethylsilyloxymethyl)-2-cyclohexenyl] adenine
- 9-[(1S,4R,5S)-5-Hydroxy-4-hydroxymethyl-2-cyclohexenyl]adenine
- 9-[(1S,4R,5S)-5-(tert-butyldimethylsilyloxy)-4-(tert-butyldimethylsilyloxymethyl)-2-cyclohexenyl]-2-amino-6-chloropurine
- 9-[(1S,4R,5S)-5-hydroxy-4-hydroxymethyl-2-cyclohexenyl]guanine
- 9-[(1R,4S,5R)-5-Benzoyloxy-4-benzoyloxymethyl-2-cyclohexenyl] adenine

- 9-[(1R,4S,5R)-5-hydroxy-4-hydroxymethyl-2-cyclohexenyl] adenine
- 9-[(1R,4S,5R)-5-Benzoyloxy-4-benzoyloxymethyl-2-cyclohexenyl] guanine, and
- 9-[(1R,4S,5R)-5-Hydroxy-4-hydroxymethyl-2-cyclohexenyl] guanine.

Please amend claim 15 as follows:

15. (Amended) Process for providing [a] the compound of claim 1, including, the (-) enantiomer, the (+) enantiomer, and pharmaceutically acceptable salts and esters thereof [according to any of the preceding claims], said process comprising the steps of:

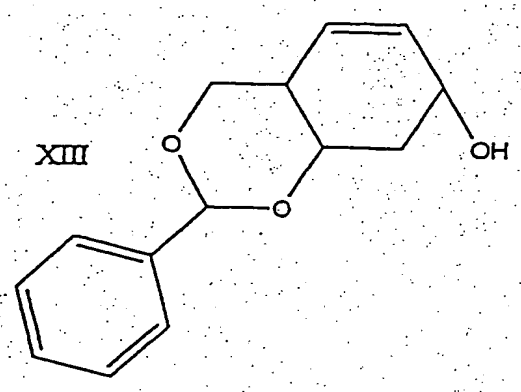
- providing cyclohexenyl compound of the general formula XII;



- wherein R^1 and R^2 are protecting groups and R^3 is a leaving group or [an] a Hydrogen atom, followed by the step of substituting the OR-^{3} group by a pyrimidine or purine base.

Please amend claim 18 as follows:

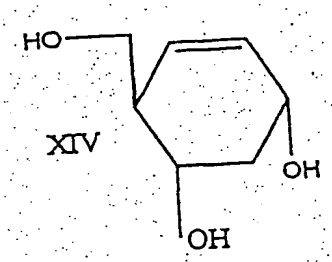
18. (Amended) Process according to [any of the preceding claims 15-17] claim 15, wherein the compound of general formula XII has the chemical formula XIII;



[or] including analogues thereof either in a racemate form or separated isomers thereof.

Please amend claim 19 as follows:

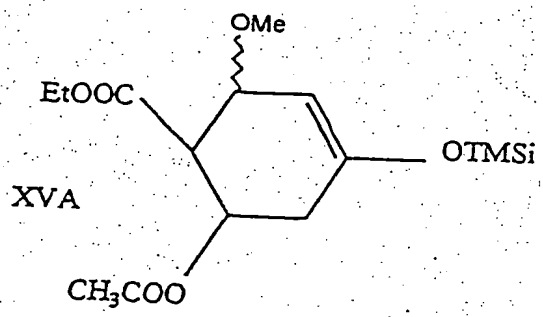
19. (Amended) Process according to [any of the preceding claims 15-18] claim 15, wherein compound XIII is provided by reacting (±) 4-hydroxymethyl-cyclohex-2-en-1,5 Diol of formula XIV;

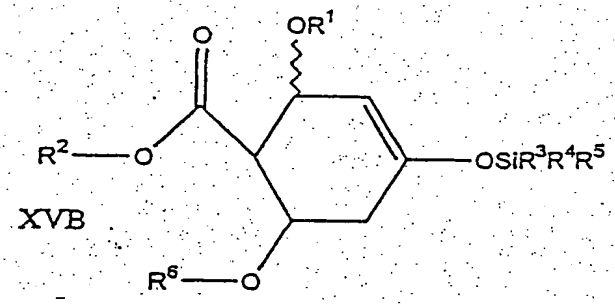


with a benzaldehyde analogue and a [lewis] Lewis acid, [preferably being benzalydehyde dialkyl acetal, most preferably dimethyl acetal, and p-toluenesulfonic acid].

Please amend claim 20 as follows:

20. (Amended) Process according to [any of the preceding claims 15-19] claim 15, wherein compound XIV is provided by the reduction of compound selected from the group consisting of XVA [or] and XVB, [preferably utilising lithium aluminum hydride or an equivalent thereof as reducing agent];





wherein for SVB:

- R^1 and R^2 are alkyl or alkenyl moieties,

wherein:

- R^1 and R^2 are the same or different, and
- alkyl is a saturated, substituted or unsubstituted hydrocarbon radical having from 1 to 20 [for example 1-16, 1-14, 1-12, 1-10, 1-8, 1-4], carbon atoms and being straight or branched chain, and
- alkenyl is the unsaturated congener of the alkyl group, and
- R^3, R^4 and R^5 are alkyl, alkenyl or aryl moieties, wherein:

- R^3, R^4 and R^5 are the same or different, and
- alkyl is a saturated, substituted or unsubstituted straight or branched chain hydrocarbon radical having from 1 to 20 [for example 1-16, 1-14, 1-12, 1-10, 1-8, 1-4,] carbon atoms and
- alkenyl is the unsaturated congener of the alkyl group, and
- aryl represents phenyl or substituted phenyl, and

R^6 is [a] an alkyl, alkenyl or acyl moiety, wherein

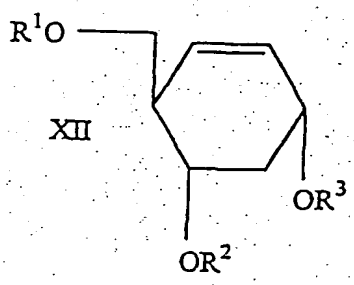
- alkyl is a saturated, substituted or unsubstituted hydrocarbon straight or branched chain radical [having from] having from 1 to 20 [for example 1-16, 1-14, 1-12, 1-10, 1-8, 1-4,] carbon atoms,
- alkenyl is the unsaturated congener of the alkyl group, and
- acyl is an alkanoyl or aroyl moiety, wherein alkanoyl is an alkyl carbonyl radical, wherein alkyl is as described above and aroyl represents benzoyl, substituted benzoyl or naphtoyl.

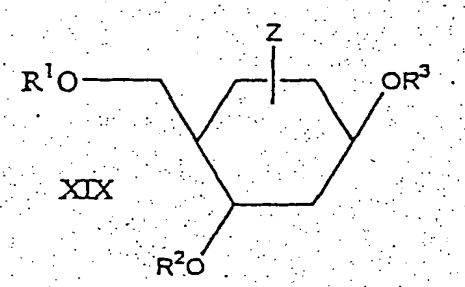
Please amend claim 21 as follows:

21. (Amended) Process according to claim 20, wherein compound XVA or XVB is provided by a [diels-alder] Diels-Alder reaction, by the cyclo addition of a suitable diene and dienophile [wherein preferably the diene and dienophile are heated together in the presence of hydroquinone].

Please amend claim 24 as follows:

24. (Amended) A six membered, at least partially unsaturated, carbocyclic nucleoside compound, including the (-) enantiomer, the (+) enantiomer, and pharmaceutically acceptable salts and esters thereof, the compounds represented by [the] a general formula selected from the group consisting of XII [or] and XIX;





wherein:

- Z represents the presence of 1 or more double bonds in the carbocyclic ring,
- R^1 and R^2 are protecting groups and R^3 is a leaving group or [an] a Hydrogen atom.

Please amend claim 25 as follows:

25. (Amended) Compound according to claim 24, wherein[;]:

R^1 and R^2 are the same or different and hydrogen, alkyl, alkenyl, acyl or phosphate moieties are represented, or R^1 and R^2 represent a cyclic protecting group[;], wherein:

- alkyl is a saturated, substituted or unsubstituted straight or branched chain hydrocarbon radical having from 1 to 20 [for example 1-16, 1-14, 1-12, 1-10, 1-8, 1-4,] carbon atoms, and

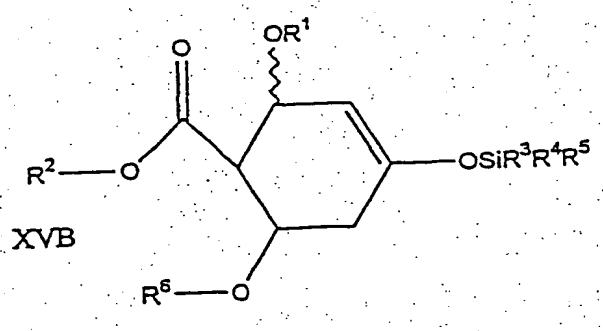
- alkenyl is the unsaturated congener of the alkyl group, and
- acyl is an alkanoyl or aroyl moiety, wherein alkanoyl is an alkyl carbonyl radical, wherein alkyl is as described above and aroyl represents benzoyl, substituted benzoyl or naphtoyl; and

R^3 represents a hydrogen, an alkylsulfonyl or an arylsulfonyl moiety, wherein:

- alkyl is a saturated, substituted or unsubstituted hydrocarbon radical having from 1 to 6 carbon atoms and straight or branched chain, and
- aryl represents phenyl or substituted phenyl[, and].

Please amend claim 26 as follows:

26. (Amended) A cyclohexenyl compound, including the (-) enantiomer, the (+) enantiomer, and pharmaceutically acceptable salts and esters thereof, the compound represented by the general formula XVB;



XVB

wherein R^1 and R^2 are alkyl or alkenyl moieties, wherein

- R^1 and R^2 are the same or different, and
- alkyl is a saturated, substituted or unsubstituted straight or branched chain hydrocarbon radical having from 1 to 20 [for example 1-16, 1-14, 1-12, 1-10, 1-8, 1-4] carbon atoms,
- alkenyl is the unsaturated congener of the alkyl group, and

R^3, R^4 and R^5 are alkyl, alkenyl or aryl moieties, wherein:

- R^3, R^4 and R^5 are the same or different, and
- alkyl is a saturated, substituted or unsubstituted straight or branched chain hydrocarbon radical having from 1 to 20 [for example 1-16, 1-14, 1-12, 1-10, 1-8, 1-4] carbon atoms and,
- alkenyl is the unsaturated congener of the alkyl group, and
- aryl represents phenyl or substituted phenyl, and

R^6 is [a] an alkyl, alkenyl or acyl moiety, wherein:

- alkyl is a saturated, substituted or unsubstituted straight or branched chain hydrocarbon radical having from 1 to 20 [for example 1-16, 1-14, 1-12, 1-10, 1-8, 1-4] carbon atoms, and
- alkenyl is the unsaturated congener of the alkyl group, and
- acyl is an alkanoyl or aroyl moiety, wherein alkanoyl is an alkyl carbonyl radical, wherein alkyl is as described above and aroyl represents benzoyl, substituted benzoyl or naphtoyl.

Please amend claim 34 as follows:

34. (Amended) Compound according to [any of the preceding claims 24-26] claim 24 selected from the [following] group consisting of:

- (4S,5R)-5-Benzoyloxy-4-benzoyloxymethyl-cyclohex-2-en-1-one,
- (1S,4S,5R)-5-Benzoyloxy-4-benzoyloxymethyl-cyclohex-2-en-1-ol,
- (4R,5S)-4-tert-Butyldimethylsilyloxymethyl-5-tert-butyldimethylsilyloxy-cyclohex-2-en-1-one, and
- (1R,4R,5S)-5-(tert-Butyldimethylsilyloxy)-4-(tert-butyldimethylsilyloxymethyl)-cyclohex-2-en-1-ol.

Please amend claim 35 as follows:

35. (Amended) Compound [according to any of the claims 1-14, 24-34 obtainable according to] obtained by the process [according to any of the claims 15-23] of claim 15.

Please amend claim 36 as follows:

36. (Amended) Pharmaceutical composition comprising a compound according to [any of the claims 1-14, 24-34] claim 1.

Please amend claim 37 as follows:

37. (Amended) A pharmaceutical composition as claimed in [any of the claims 1-14, 24-34] claim 1, having antiviral activity towards herpetic viruses [selected but not limited from the group consisting of herpes simplex virus type 1 (HSV-1), herpes simplex virus type 2 (HSV-2), Varicella zoster virus (VZV), and cytomegalovirus (CMV), as well as towards pox viruses, e.g. vaccinia virus (VV)].

Please amend claim 39 as follows:

39. (Amended) A pharmaceutical composition as claimed in claim 38, having [the] a form which is selected from the group consisting of powders, suspensions, solutions, sprays, emulsions, unguents and creams.

Please amend claim 41 as follows:

41. (Amended) A method of providing [The use of a compound according to any of the claims 1-14, 24-34 as an agent having] biological activity comprising administering the compound according to claim 1.

Please amend claim 43 as follows:

43. (Amended) A method [The use of a compound according to any of the claims 1-14, 24-34] for the preparation of a pharmaceutical composition having antiviral

activity [towards herpes viruses, pox viruses and related viruses] comprising combining the compound according to claim 1 with other ingredients.